BookletChart™

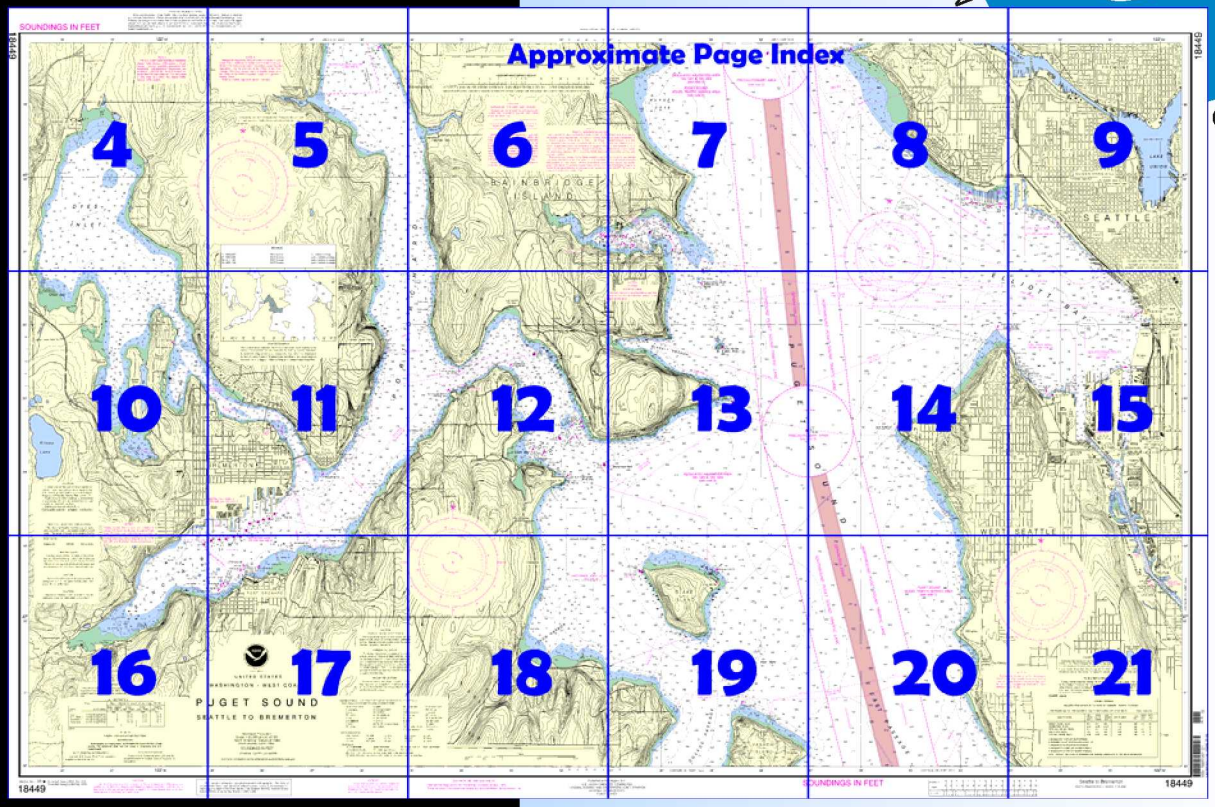
Puget Sound – Seattle to Bremerton

(NOAA Chart 18449)

A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ☑ *Complete, reduced scale nautical chart*
- ☑ *Print at home for free*
- ☑ *Convenient size*
- ☑ *Up to date with all Notices to Mariners*
- ☑ *United States Coast Pilot excerpts*
- ☑ *Compiled by NOAA, the nation's chartmaker.*

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NOAA
COMMERCE



Home Edition (not for sale)

Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
301-713-2770

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

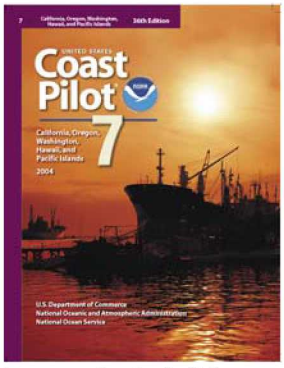
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



[Coast Pilot 7, Chapter 13 excerpts]

(102) **Bainbridge Island**, 9 miles long and heavily wooded, forms part of the W shore of Puget Sound.

(109) **Murden Cove** is an open bight on the W side of the sound about 3.5 miles S of Point Monroe. An extensive flat which bares extends almost 0.5 mile from the head of the cove, and outside of it the depth increases rapidly. **Skiff Point,** the N entrance point, has low yellow bluffs to the S. A shoal, covered by kelp, extends about 250 yards from the point; this shoal is reported to be building out and should be given a wide berth. **Yeomalt Point,** the S entrance point, is a low, grassy sandspit, 150 yards wide, rising gradually to the general level of the high land.

(110) **Wing Point,** on the N side of the entrance to Eagle Harbor, is a narrow, bluff point 30 feet high, covered with trees to the edge. A flag pole is prominent on the point. A reef extends SSE for 0.5 mile from Wing Point and is generally marked by kelp. The S extremity of the reef is marked by a buoy. **Tyee Shoal,** 0.7 mile SSE of Wing Point, with a least depth of 15 feet, is marked by a light with a fog signal.

(112) **Eagle Harbor** indents the E shore of Bainbridge Island opposite Elliott Bay. It is 2 miles long and affords excellent anchorage in 30 to 39 feet, muddy bottom.

(114) **Winslow** is the largest town on Bainbridge Island. It is on the N shore of Eagle Harbor, and is a major ferry port on the cross-sound routes to and from downtown Seattle.

(116) **Creosote,** a low flat extending 350 yards inland, then rising abruptly to over 200 feet, is on the S side to the entrance of Eagle Harbor. Ships formerly loaded creosoted lumber at the wharf. Two lights and a buoy mark shoals to the NW and E. **Eagledale,** is a small town with three marinas, on the S shore about 0.5 mile W of Creosote.

(117) **Blakely Rock,** the highest of four rocks, is prominent in approaching Blakely Harbor; it is 0.7 mile N of Restoration Point and at high water shows about 15 feet at its highest point.

(118) **Blakely Harbor** is a small inlet on the E shore of Bainbridge Island near its S end.

(119) **Restoration Point** is flat and about 10 feet high for 300 yards from the shore, then it rises abruptly to a wooded knoll about 100 feet high, on which a flagpole and a number of large buildings are prominent. **Decatur Reef,** partly bare, extends 300 yards E of Restoration Point. The outer end of the reef is marked by a light.

(123) **West Point,** at the N entrance to Elliott Bay, is a low, sandy point which rises abruptly to an elevation of over 300 feet 0.5 mile from its tip. The edge of the shoal extending WSW from the point is marked by a lighted buoy. **West Point Light** (47°39'43"N., 122°26'09"W.), 27 feet above the water, is shown from a 23-foot white octagonal tower attached to a building on the end of the point; a fog signal is at the station.

(124) **Alki Point,** at the S entrance to Elliott Bay, is low with a small prominent wooded knoll about 80 feet high immediately back of it. E of the knoll, lowland extends for nearly 0.4 mile before rising to the high land extending S from Duwamish Head. **Alki Point Light** (47°34'35"N., 122°25'14"W.), 39 feet above the water, is shown from a 37-foot white octagonal tower attached to a building on the end of the point. A fog signal is at the light.

(125) **Elliott Bay** indents the E shore of Puget Sound just N of Duwamish Head

(126) **Magnolia Bluff,** largely bare, light-colored, and rising in places to nearly 300 feet, extends along the N shore from West Point to Smith Cove. **Fourmile Rock** is 60 yards offshore, 1.7 miles SSE of West Point Light. A light is on the rock.

(129) **Duwamish Head,** 1.8 miles NE of Alki Point and rising to over 260 feet from the point, bounds Elliott Bay to the S.

(327) **Port Orchard** is an extensive body of water, W of **Bainbridge Island,**15 miles long. Its N end connects with Port Madison through Agate Passage

(342) **Illahee** is a small settlement on the W shore of Port Orchard about 3.0 miles S of Battle Point.

(343) **Fletcher Bay** is a village on the E shore of Port Orchard about 1.2 miles S of Battle Point.

(345) **Orchard Point,** the S point at the entrance to Rich Passage, is marked by a light and fog signal.

(346) **Rich Passage** is about 3 miles long, with a sharp bend near its W end, where it narrows to 0.2 mile. **Orchard Rocks,** some 400 yards in extent, are on the N side of the channel just inside the E entrance. A small area near the center of the reef, which uncovers, is marked by a daybeacon. The rocks are marked off their S end by a lighted buoy. The reef off **Point Glover** is marked by a light and fog signal. **Waterman Point,** at the W entrance, is marked by a light and fog signal. A light marks the S edge of the shoal extending from **Point White,** the N point at the W entrance. The town of **Waterman** has a pier and float in deep water about 1 mile SW of Waterman Point.

Table of Selected Chart Notes

Corrected through NM Oct. 4/03
Corrected through LNM Sep. 9/03

HEIGHTS

Heights in feet above Mean High Water.

Mercator Projection
Scale 1:25,000 at Lat. 47°35'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET

AT MEAN LOWER LOW WATER

NOTE C

The U.S. Coast Guard operates a mandatory Vessel Traffic Service (VTS) system in Puget Sound. Vesssel operating procedures and designated radiotelephone frequencies are published in 33 CFR 161, the U.S. Coast Pilot, and/or the VTS User's Manual. The entire area of this chart falls within the Vessel Traffic Service (VTS) system.

NOTE B

Mariners are cautioned that the Washington State Ferries may deviate from the published standard routes due to inclement weather, traffic conditions, navigational hazards or other emergency conditions.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

NOTE D

CAUTION

MOORING CABLE

Mooring cable is suspended above water line. Mariners should use extreme caution when transiting the area.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 for important supplemental information.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.647" southward and 4.454" westward to agree with this chart.

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Pipeline Area

Cable Area

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging or trawling.

Covered wells may be marked by lighted or unlighted buoys.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Imagery and Mapping Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

NOTE F

Floating security barriers have been installed at various U.S. Naval installations throughout Puget Sound.The barriers are marked by numerous quick flashing yellow (Q Y) lights and approximately mark the Restricted Areas surrounding the facility. (CFR 334.1240 add Bremerton restricted area/security area)

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

CAUTION

BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

NOAA VHF-FM WEATHER BROADCASTS

The National Weather Service station listed below provides continuous marine weather broadcasts. The range of reception is variable, but for most stations is usually 20 to 40 miles from the antenna site.

Seattle,WA	KHB-60	162.55 MHz

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 13th Coast Guard District in Seattle, Wash., or at the Office of the District Engineer, Corps of Engineers in Seattle, Wash.

Refer to charted regulation section numbers.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey with additional data from the Corps of Engineers and U.S. Coast Guard.

Additional information can be obtained at nauticalcharts.noaa.gov.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Imagery and Mapping Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

NOTE E

TRAFFIC SEPARATION SCHEME

One-way traffic lanes overprinted on this chart are RECOMMENDED for use by all vessels traveling between the points involved. They have been designated to aid in the prevention of collisions in the Puget Sound waters, but are not intended in any way to supersede or alter the applicable Rules of the Road. Separation zones are intended to separate inbound and outbound traffic and to be free of ship traffic. Separation Zones should not be used except for crossing purposes. When crossing traffic lanes and separation zones, use extreme caution.

Precautionary Areas have been established where major lanes merge and cross the traffic separation scheme. It is recommended that vessels proceed with caution in these areas. Wherever practical, vessels entering or leaving the system should do so at these precautionary areas. For more information regarding Traffic Separation Scheme procedures and regulations, see 33 CFR 167 and / or chapter 2 of the U.S. Coast Pilot.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

COLREGS, 80.1395 (see note A)

International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

TIDAL INFORMATION

Place Name	(LAT/LONG)	Height referred to datum of soundings (MLLW) Mean Higher High Water	Mean High Water	Mean Low Water	Extreme Low Water
		feet	feet	feet	feet
Seattle	(47°36'N/122°20'W)	11.4	10.5	2.8	-5.0
Port Blakely	(47°36'N/122°31'W)	11.5	10.6	2.8	-5.0
Brownsville	(47°39'N/122°37'W)	11.8	11.0	2.9	-5.0
Bremerton	(47°34'N/122°37'W)	11.7	10.9	2.8	-5.0

(0101)

DUWAMISH WATERWAY

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 2003

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	PROJECT DIMENSIONS WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
HARBOR ISLAND REACH	27.6	31.5	28.0	4-03	200	0.5	30
GEORGETOWN REACH	23.9A	25.6B	24.3C	4-03	200	1.7	30
FIRST AVE. 8TH AVE. REACH	17.7	16.7	11.9	4-03	150	0.7	20
SOUTH PARK REACH	11.6	15.9	16.0	4-03	150	0.5	15
14TH AVE. BRIDGE REACH	11.0D	10.7E	10.6	4-03	150	1.2	15

A. SHOALING TO 17.4 FT LAST 600 FT OF REACH
B. SHOALING TO 20.9 FT AT 47°32'34.8"N 122°20'07.1"W
C. SHOALING TO 18.2 FT LAST 600 FT OF REACH
D. SHOALING TO 3.5 FEET LAST 350 FEET OF REACH.
E. SHOALING TO 4.5 FEET LAST 300 FEET OF REACH.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are pr nted when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, http://NauticalCh arts.gov, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, http://OceanGrafix.com, or help@OceanGrafix.com.

SOUNDINGS IN FEET

18449

42' 41' 122°40' 39' 38'

39'

47° 38'

37'

36'

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Refer to charted regulation section numbers.

CAUTION

A flashing red light on South doc on float opposite Battle Point, indi progress.

Clear Cr

Silverdale

CH SPIRE

Barker Cr

D Y E S

I N L E T

Windy Pt

Fairview

Chico

Chico Bay

Ruins

Erland

Tracyton

Subm piles

Subm pile

Piles

Pile

Pile PA

Pilings

Tide rips

MAGNETIC

VAR 18°30'E (2003)

ANNUAL DECREASE 7'

SOU

A 1990-2000 NOS S

B1 1990-2000 NOS S

B2 1970-1989 NOS S

B4 1900-1939 NOS S

B4

B2

B1

A

Joins page 10

4

North

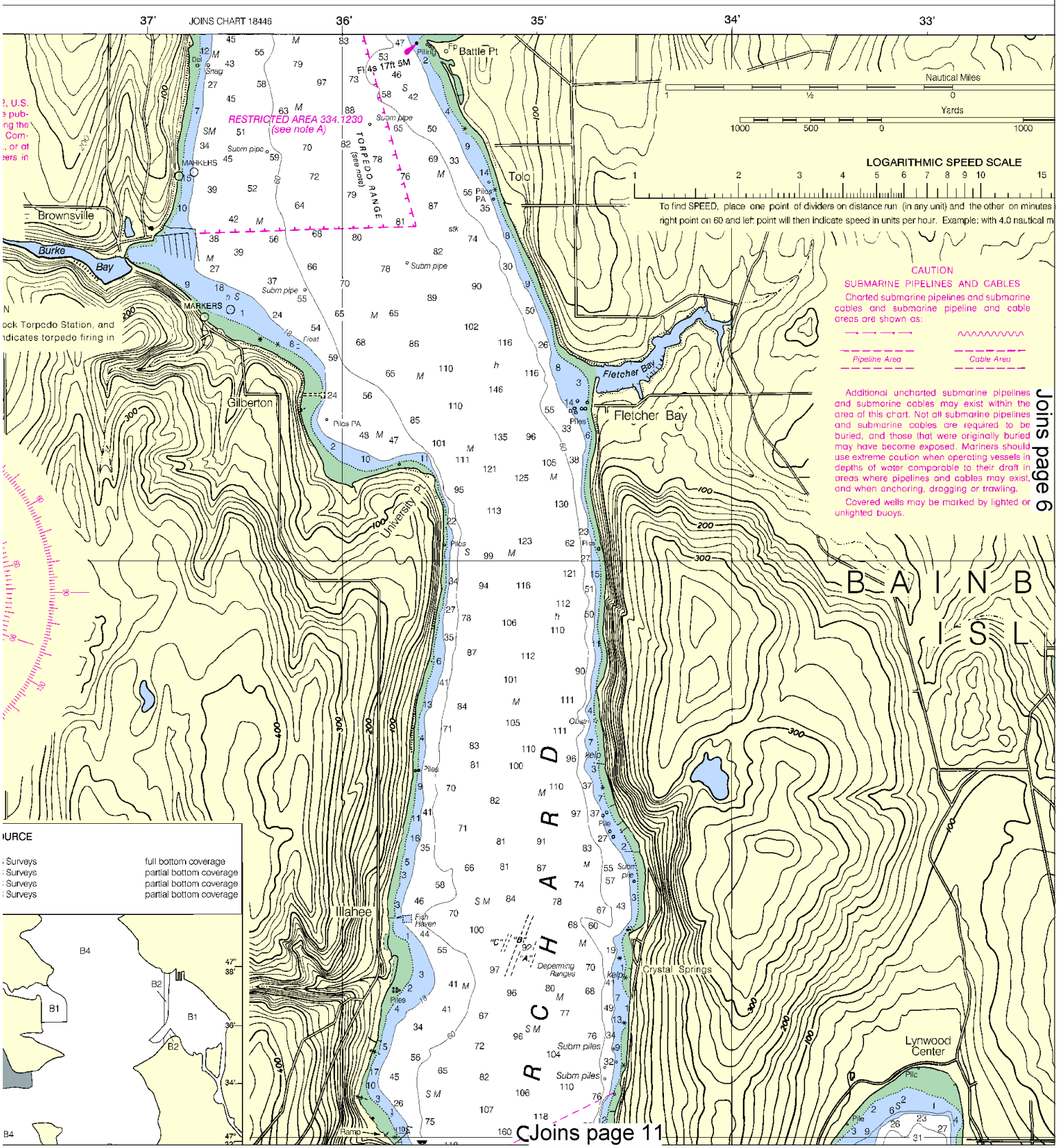
Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

Nautical Miles

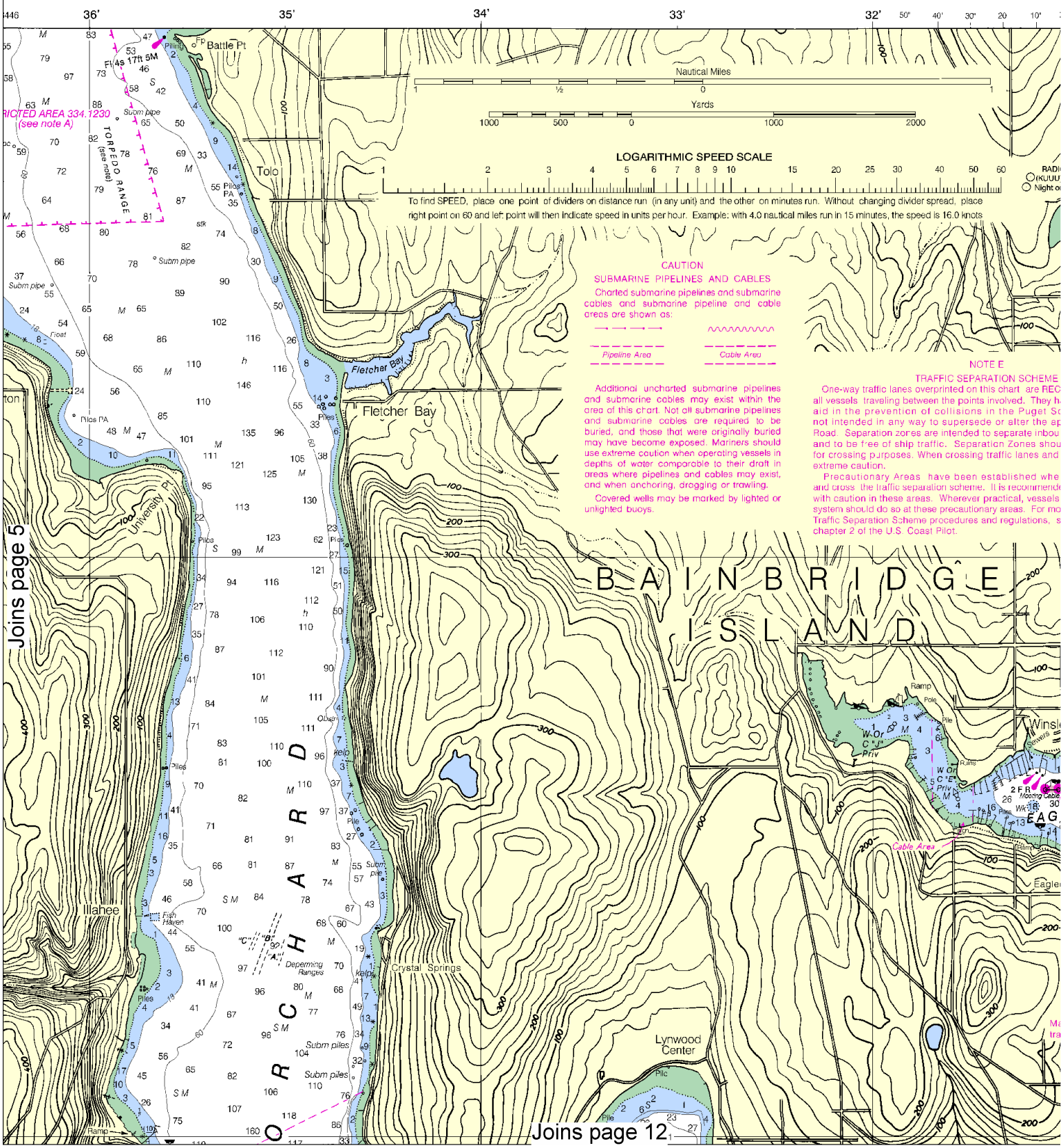
1 ½ 0 1

Yards

1000 0 1000 2000



This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:33333. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.



North

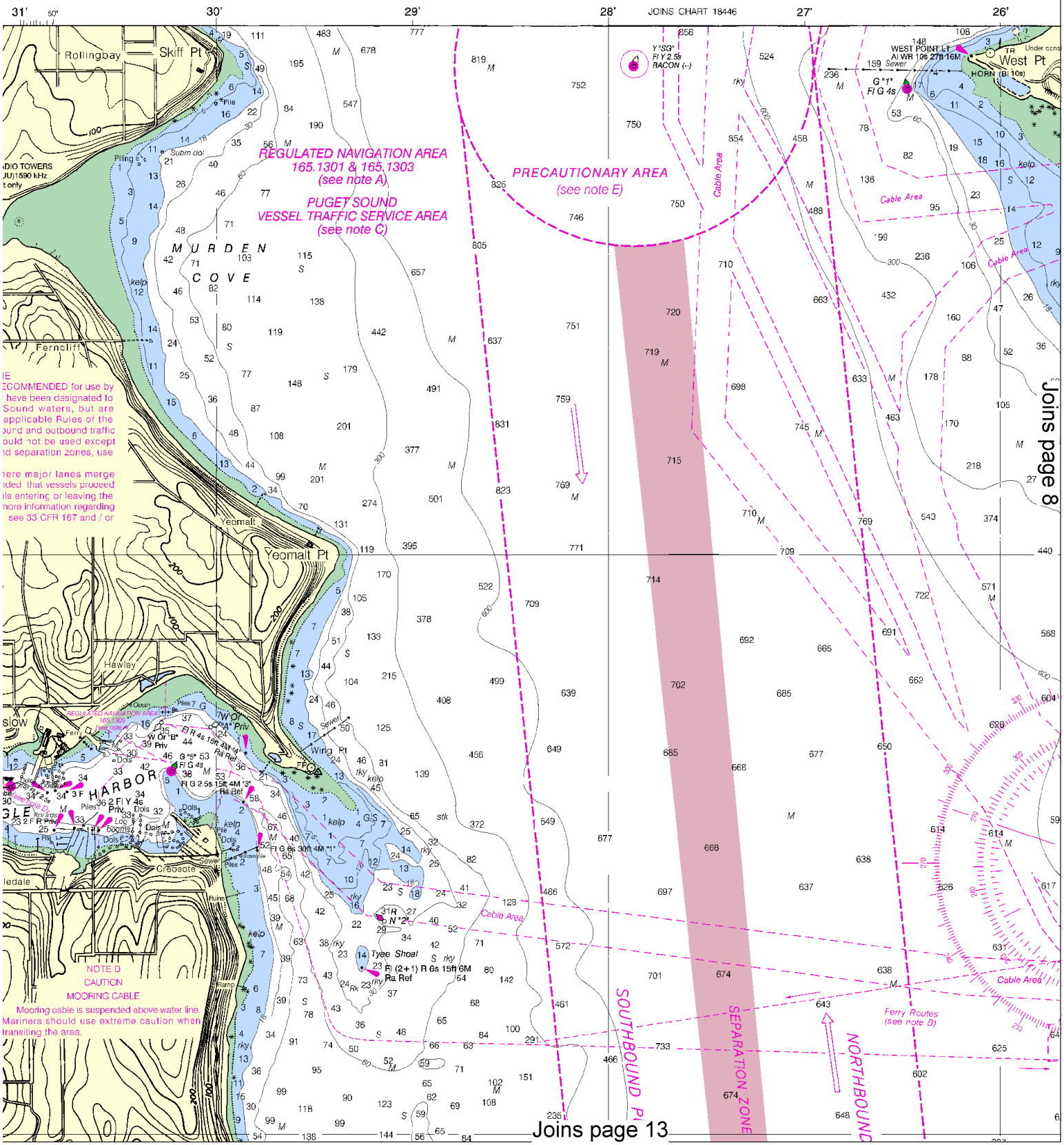
Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

Nautical Miles

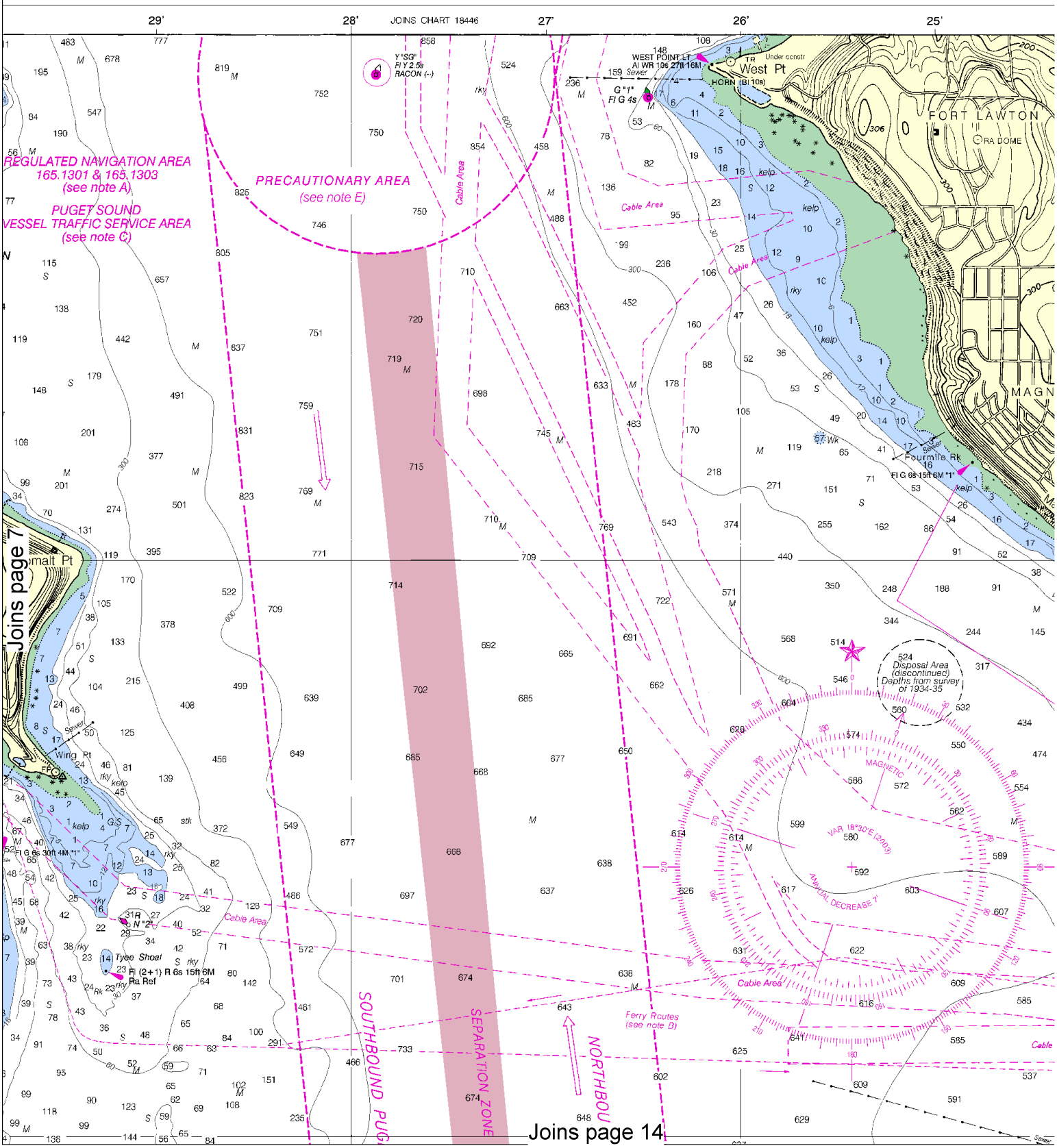
1 ½ 0 1

Yards

1000 0 1000 2000



This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0710 2/16/2010,
NGA Weekly Notice to Mariners: 0910 2/27/2010,
Canadian Coast Guard Notice to Mariners: n/a .



North

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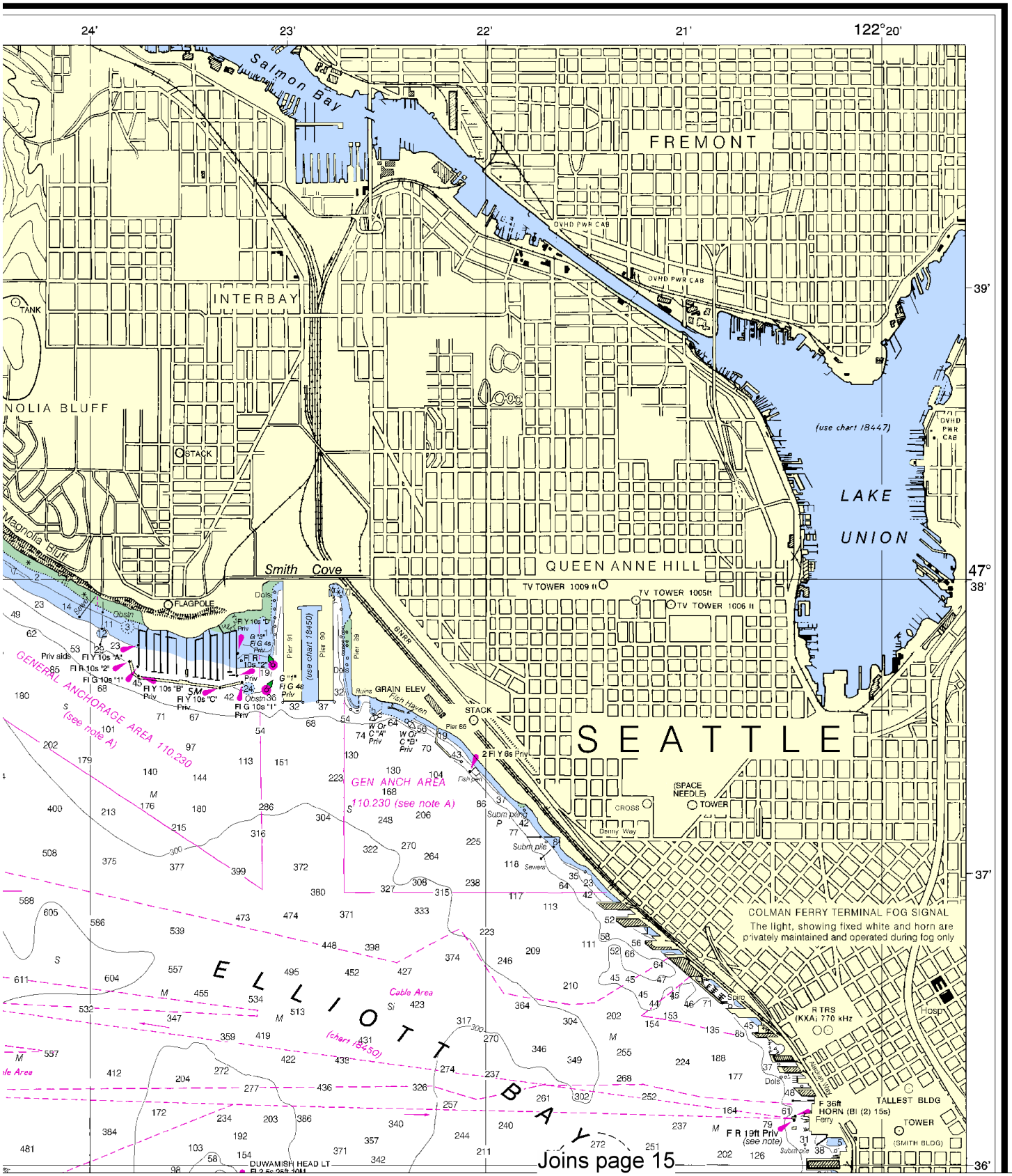
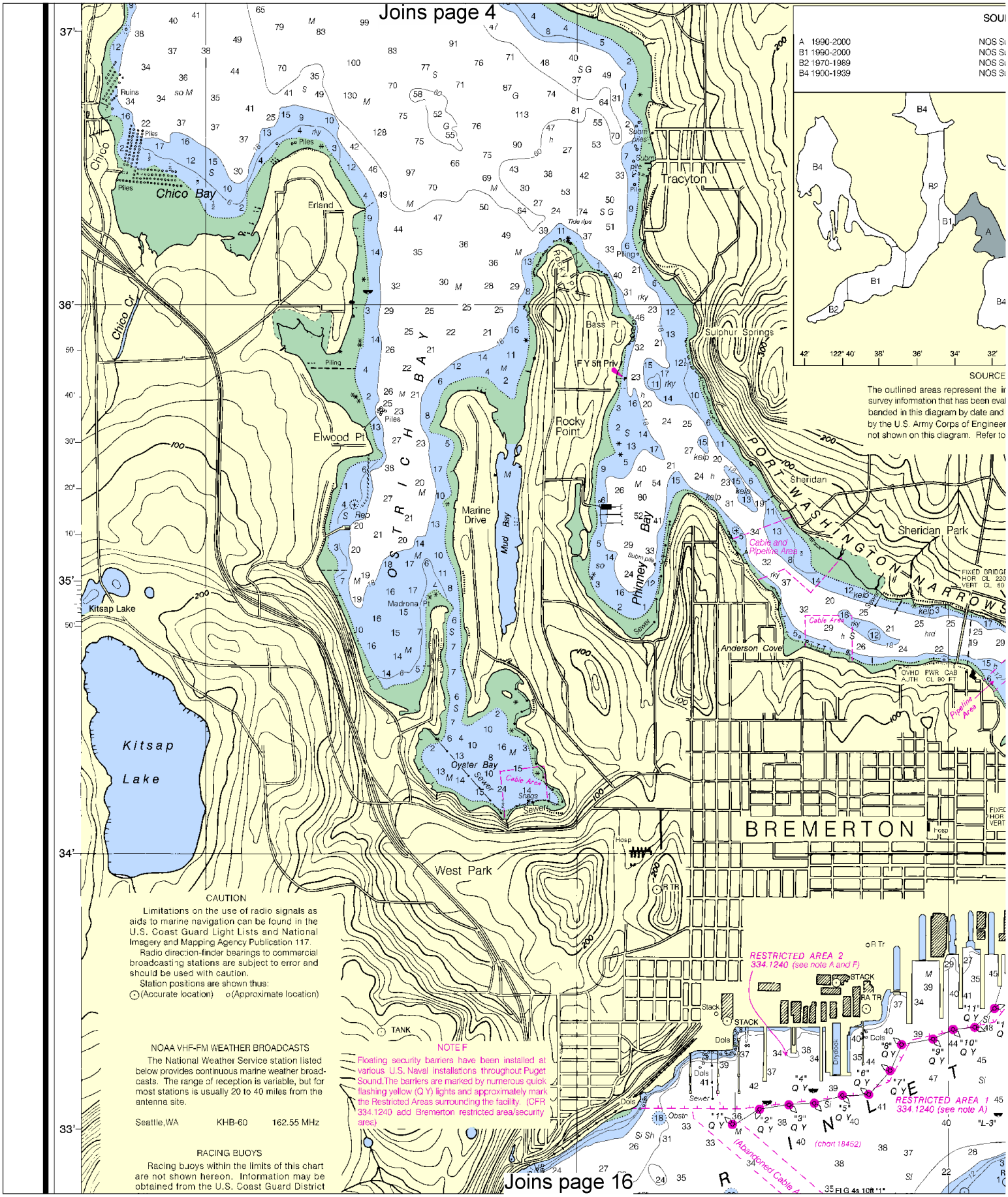
Nautical Miles
1 ½ 0 1

Yards
1000 0 1000 2000


24'
23'
22'
21'
122°20'
39'
47°
38'
37'
36'
Salmon Bay
FREMONT
INTERBAY
TANK
NOLIA BLUFF
STACK
Magnolia Bluff
Smith Cove
FLAGPOLE
LAKE UNION
(use chart 18447)
QUEEN ANNE HILL
TV TOWER 1009 ft
TV TOWER 1005ft
TV TOWER 1006 ft
SEATTLE
(SPACE NEEDLE)
TOWER
CROSS
Denny Way
GRAIN ELEV
Fish Haven
Pier 86
Pier 91
Pier 90
Pier 89
(use chart 18450)
GENERAL ANCHORAGE AREA 110.230 (see note A)
GEN ANCH AREA 110.230 (see note A)
Cable Area
(chart 18450)
ELLIOTT BAY
COLMAN FERRY TERMINAL FOG SIGNAL
The light, showing fixed white and horn are privately maintained and operated during fog only
R TRS (KKA) 770 kHz
TALLEST BLDG
F 36ft HORN (Bl (2) 15s)
Ferry
TOWER
(SMITH BLDG)
F R 19ft Priv
(see note)
DUWAMISH HEAD LT
Joins page 15



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RACING BUOYS

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NOTE F

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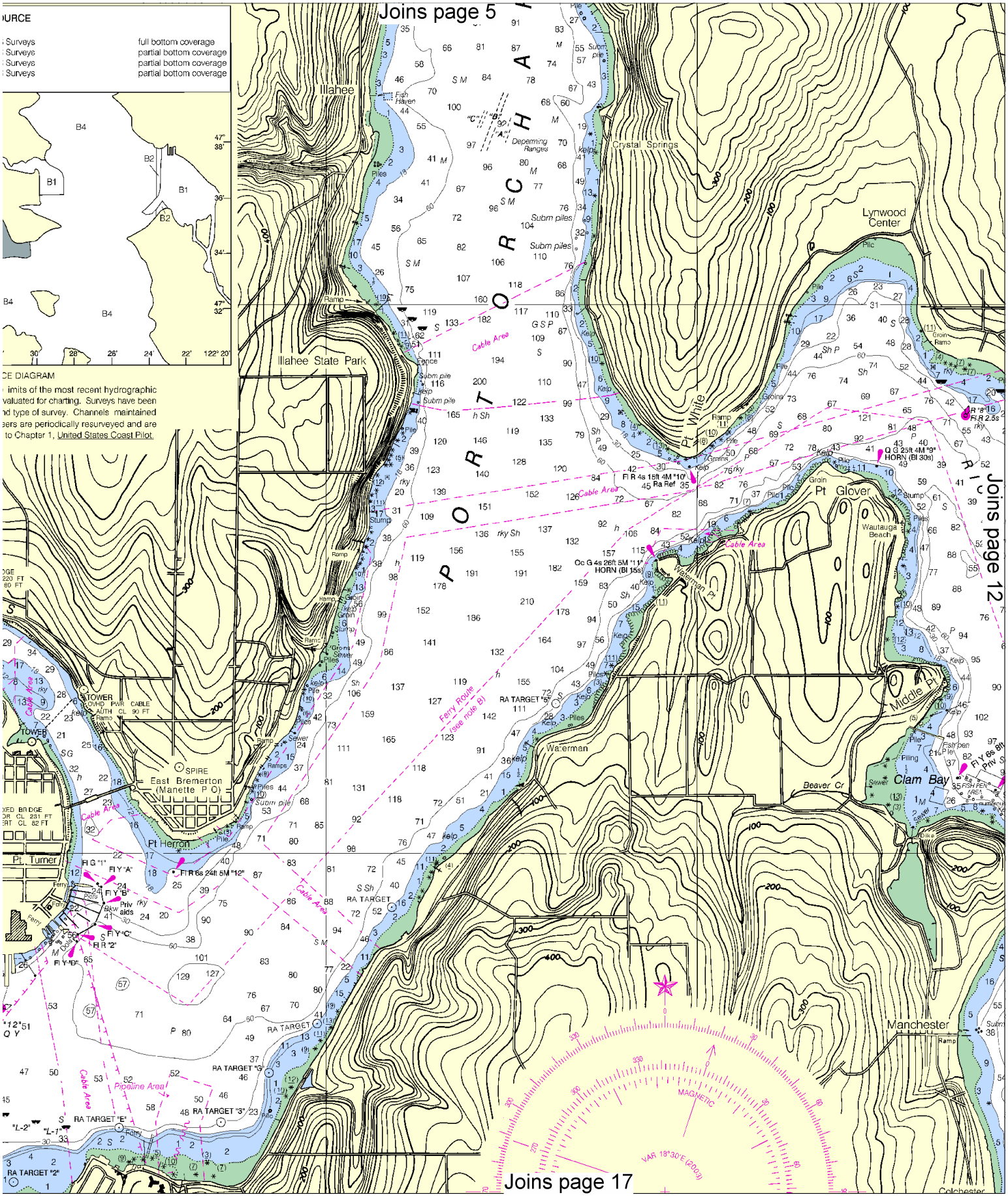
North

Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

Nautical Miles
1 ½ 0 1

Yards
1000 0 1000 2000

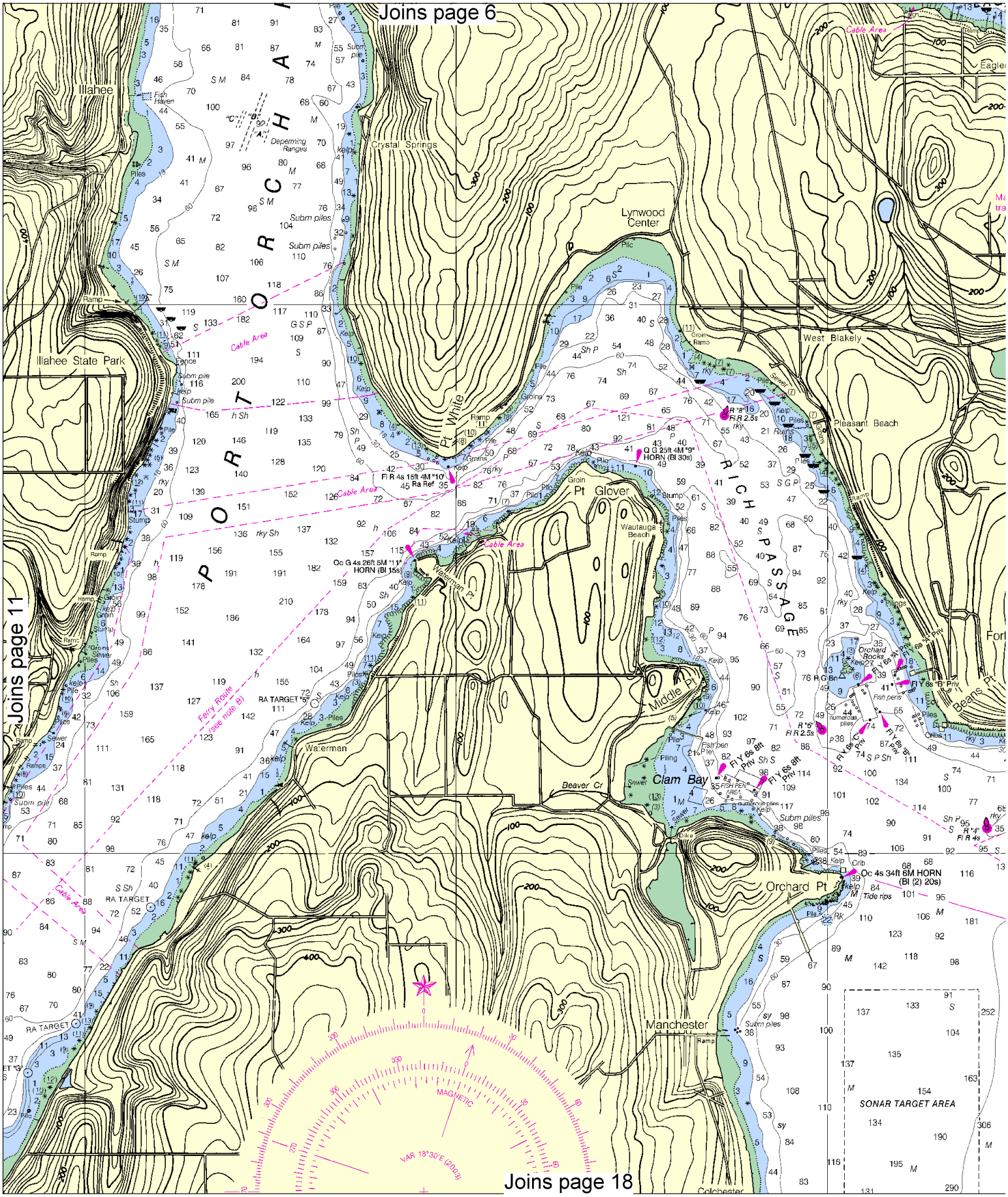


URCE

Surveys	full bottom coverage
Surveys	partial bottom coverage
Surveys	partial bottom coverage
Surveys	partial bottom coverage

CE DIAGRAM

imits of the most recent hydrographic valuated for charting. Surveys have been nd type of survey. Channels maintained ers are periodically resurveyed and are to Chapter 1, United States Coast Pilot.



North

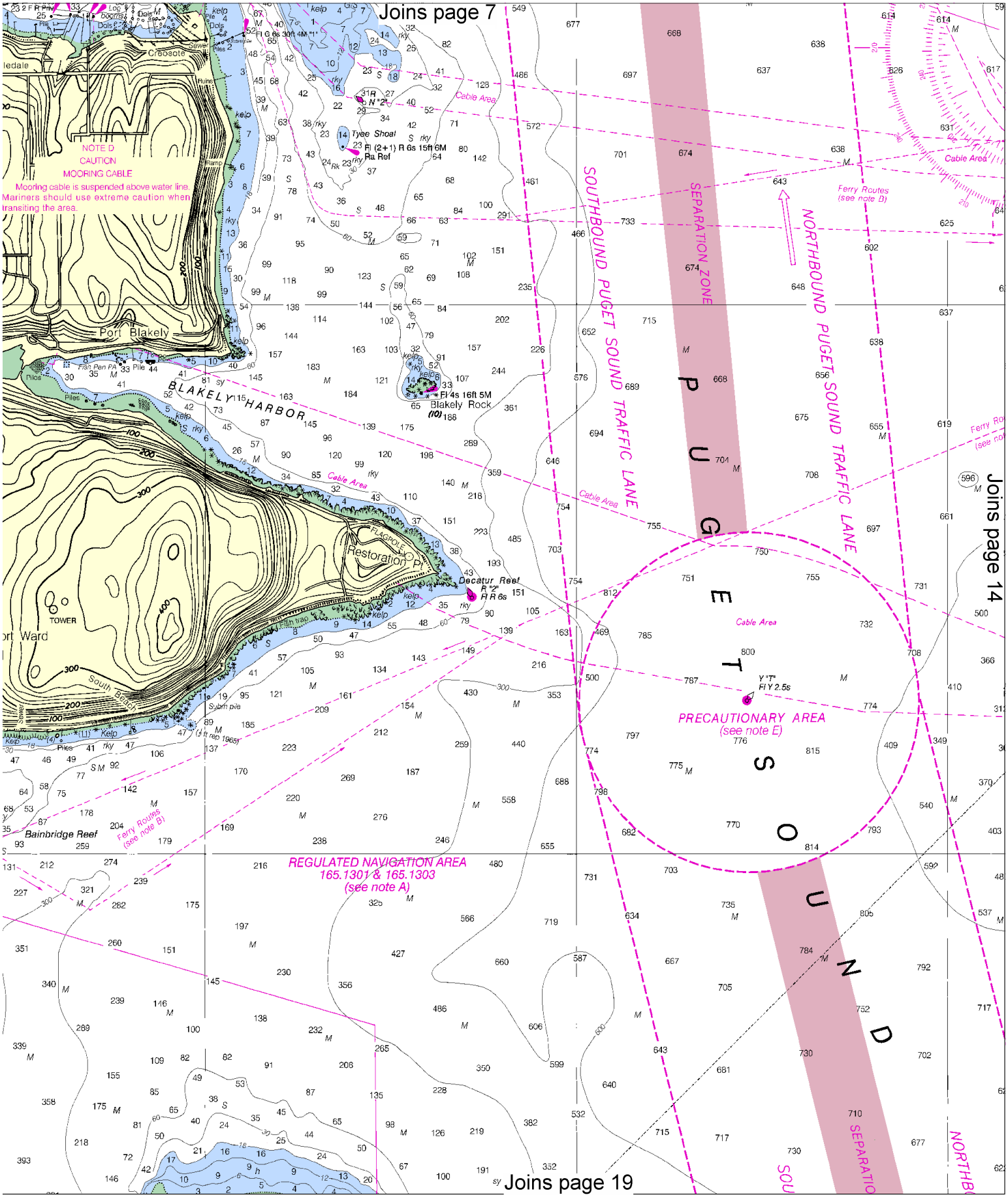
Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

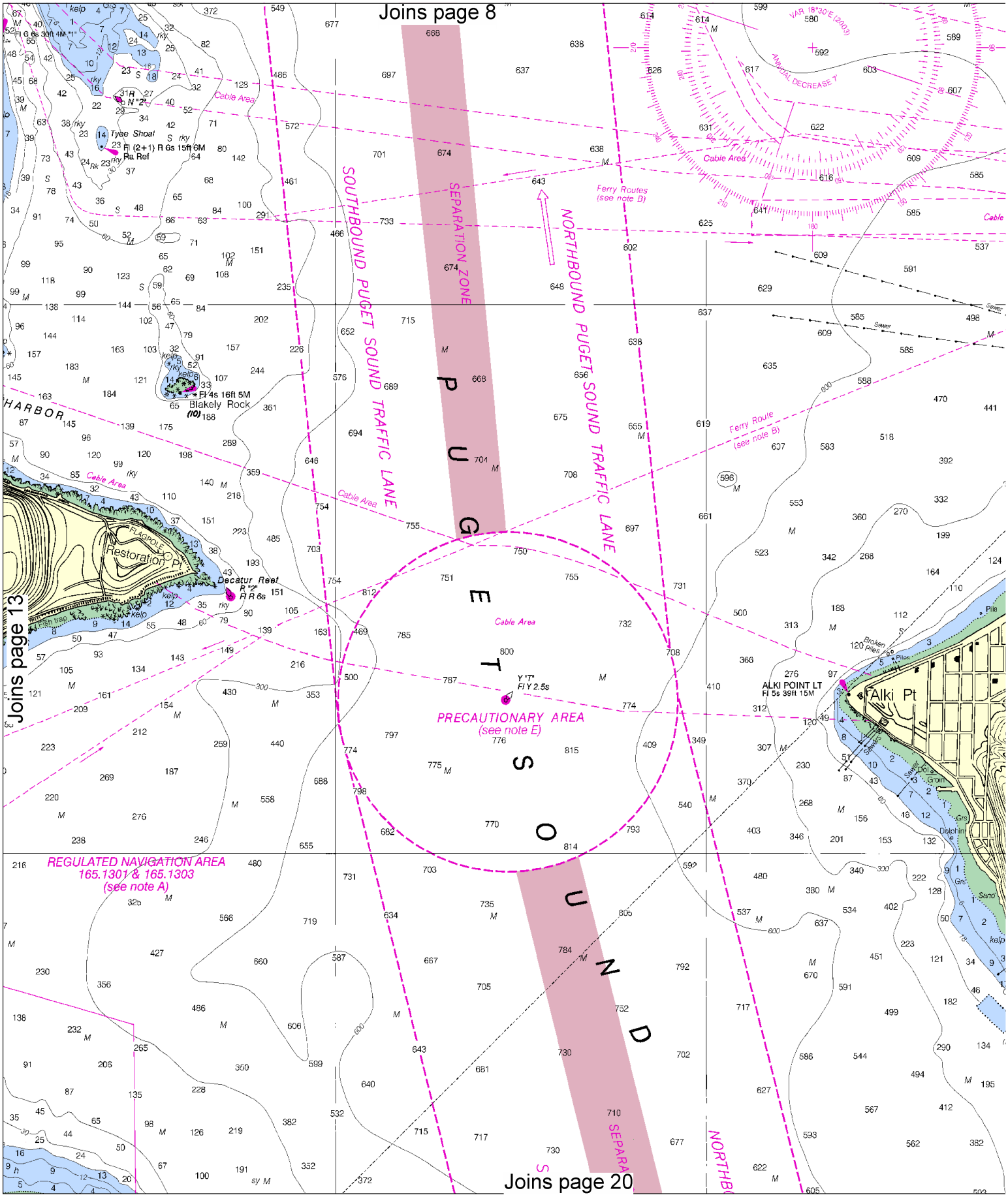
Nautical Miles

1 ½ 0 1

Yards

1000 0 1000 2000


Joins page 7
NOTE D
CAUTION
MOORING CABLE
Mooring cable is suspended above water line. Mariners should use extreme caution when transiting the area.
Port Blakely
BLAKELY HARBOR
Blakely Rock
Fl 4s 16ft 5M
Tyee Shoal
Fl (2+1) R 8s 15ft 6M
Ra Ref
Decatur Reef
R "2"
R R 6s
Restoration Pt
TOWER
Port Ward
South Beach
Bainbridge Reef
Ferry Routes (see note B)
Cable Area
SOUTHBOUND PUGET SOUND TRAFFIC LANE
NORTHBOUND PUGET SOUND TRAFFIC LANE
SEPARATION ZONE
PUGET SOUND
Y "T" Fl Y 2.5s
PRECAUTIONARY AREA
(see note E)
REGULATED NAVIGATION AREA
165.1301 & 165.1303
(see note A)
Joins page 14
Joins page 19



North

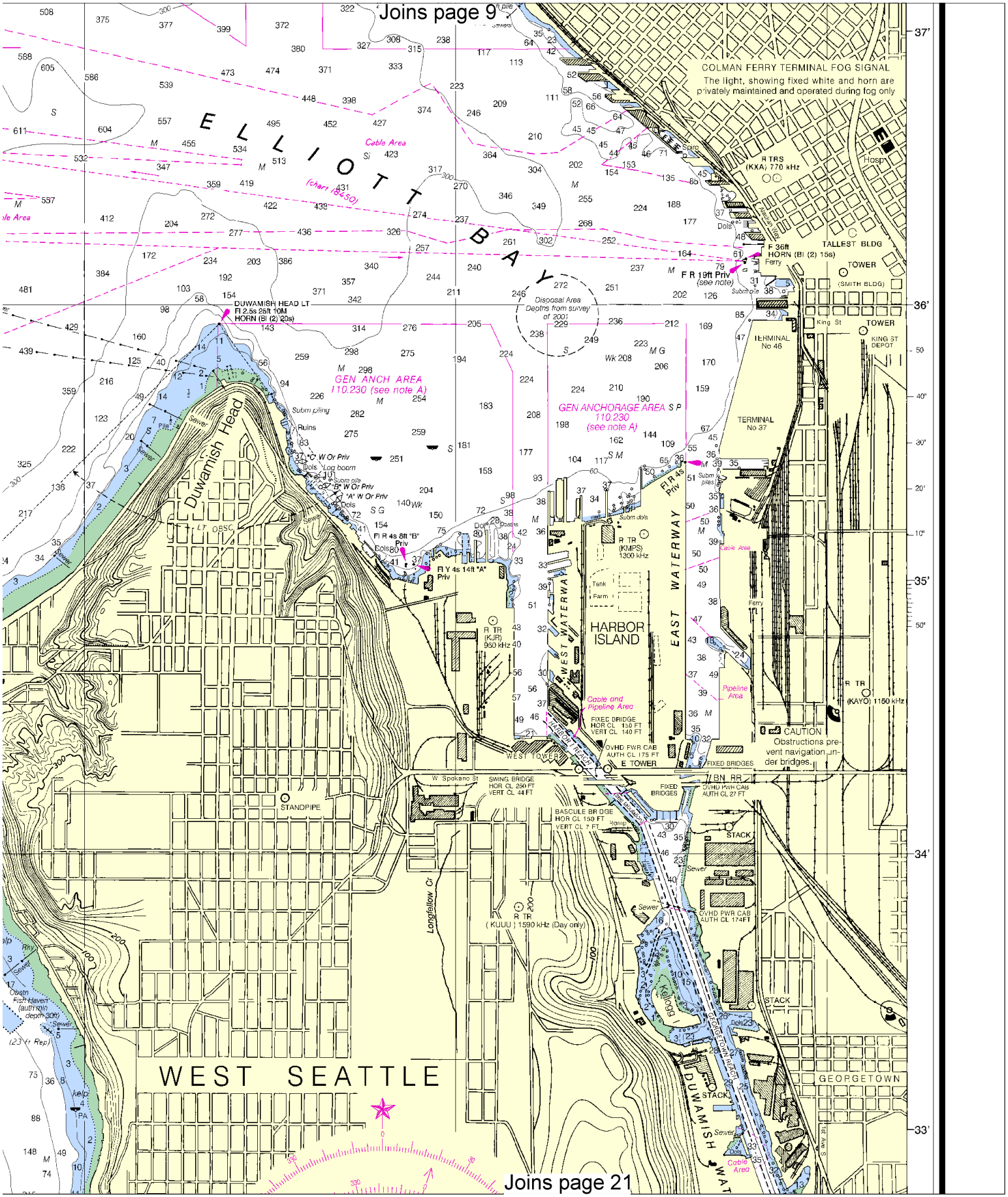
Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

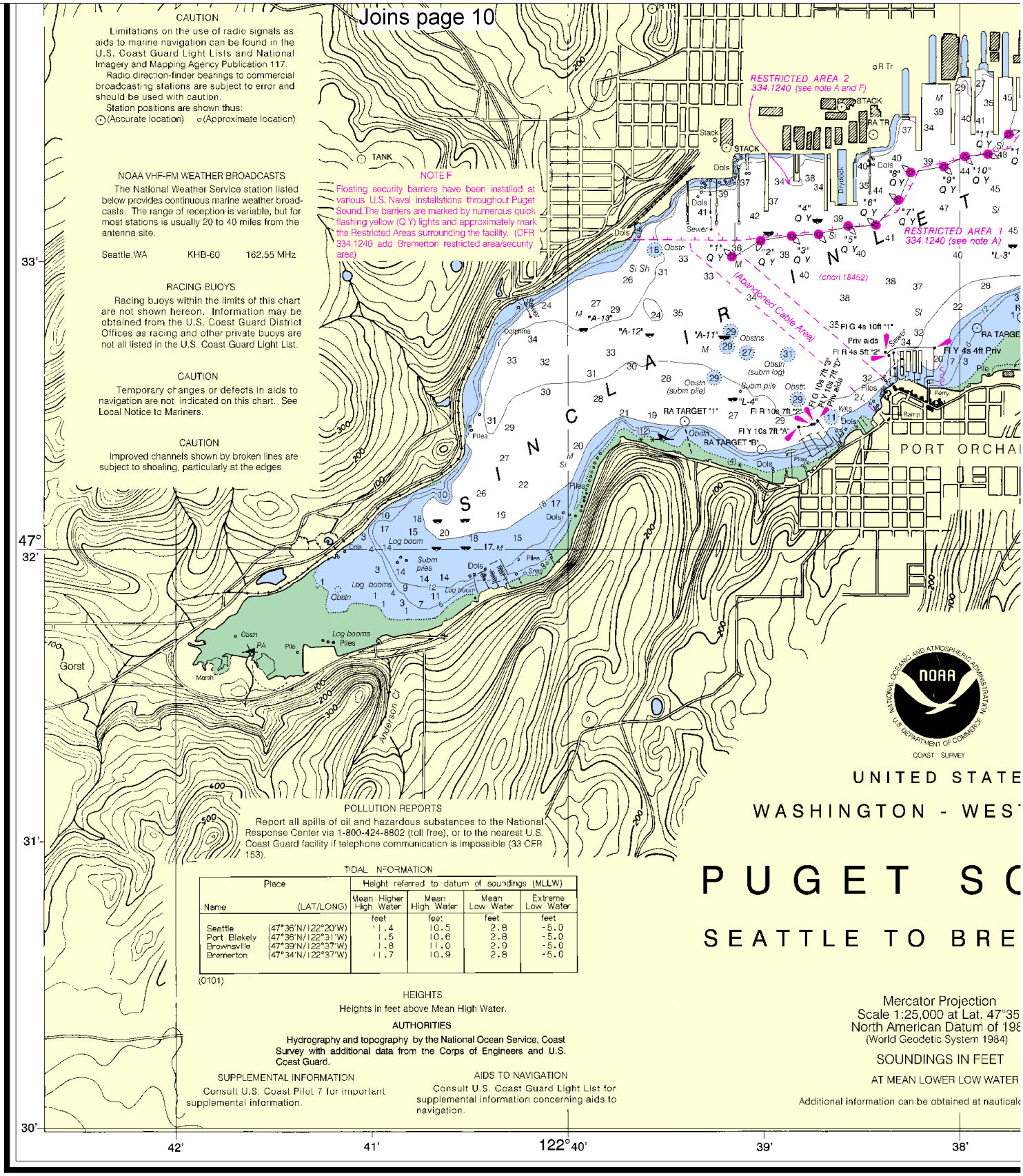
Nautical Miles

1 ½ 0 1

Yards

1000 0 1000 2000


Joins page 9
ELLIOTT BAY
COLMAN FERRY TERMINAL FOG SIGNAL
The light, showing fixed white and horn are privately maintained and operated during fog only
R TRS (KKA) 770 kHz
F 36ft HORN (Bl (2) 15s)
Ferry
TALLEST BLDG
TOWER
(SMITH BLDG)
F R 19ft Priv (see note)
Disposal Area Depths from survey of 2001
DUWAMISH HEAD LT
Fl 2.5s 25ft 10M
HORN (Bl (2) 20s)
GEN ANCH AREA 110.230 (see note A)
GEN ANCHORAGE AREA S P 110.230 (see note A)
Duwamish Head
Subm piling
Ruins
Log boom
"C" W Or Priv
"B" W Or Priv
"A" W Or Priv
Fl R 4s 8ft "B" Priv
Fl Y 4s 14ft "A" Priv
LT OBSC
Fl R 4s
R TR (KMPS) 1300 kHz
Tank Farm
HARBOR ISLAND
WEST WATERWAY
EAST WATERWAY
R TR (KJR) 950 kHz
Cable and Pipeline Area
FIXED BRIDGE HOR CL 150 FT VERT CL 140 FT
OVHD PWR CAB AUTH CL 175 FT
E TOWER
WEST TOWER
TERMINAL No 46
TERMINAL No 37
KING ST DEPOT
King St
Ferry
Pipeline Area
R TR (KAYO) 1150 kHz
CAUTION Obstructions prevent navigation under bridges.
FIXED BRIDGES
W Spokane St
SWING BRIDGE HOR CL 250 FT VERT CL 44 FT
STANDPIPE
BASCULE BRIDGE HOR CL 150 FT VERT CL 7 FT
Ramp
FIXED BRIDGES
OVHD PWR CAB AUTH CL 27 FT
BN RR
STACK
Longfellow Cr
R TR (KUUU) 1590 kHz (Day only)
Kellogg I
OVHD PWR CAB AUTH CL 174FT
GEORGETOWN
DUWAMISH WAT
Obstn
Fish Haven (auth min depth 30ft)
(23 yr Rep)
kelp
WEST SEATTLE
Joins page 21



18th Ed., Oct. / 03 ■ Corrected through NM Oct. 4/03
Corrected through LNM Sep. 9/03

18449

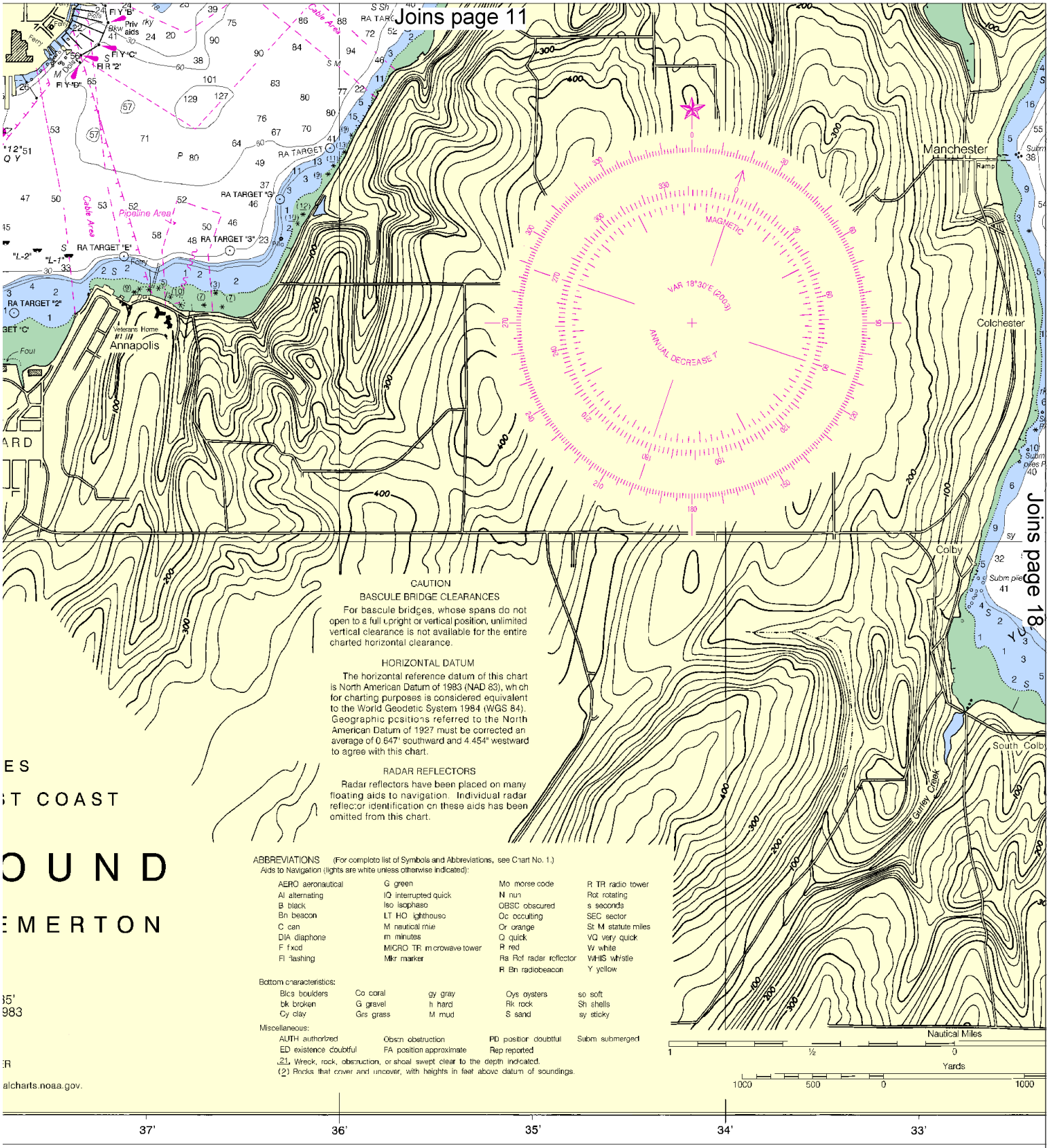
CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Imagery and Mapping Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corn

This nautical chart has been designed to promote safe navigation. Th
Ocean Service encourages users to submit corrections, additions, or com
improving this chart to the Chief, Marine Chart Division (N/CS2), Natio
Service, NOAA, Silver Spring, Maryland 20910-3282.

North

Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

Nautical Miles
1 ½ 0 1
Yards
1000 0 1000 2000



CAUTION

BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.647' southward and 4.454" westward to agree with this chart.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Iso isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Blds boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

21, Wreck, rock, obstruction, or shoal swept clear to the depth indicated.

(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

The National comments for tional Ocean

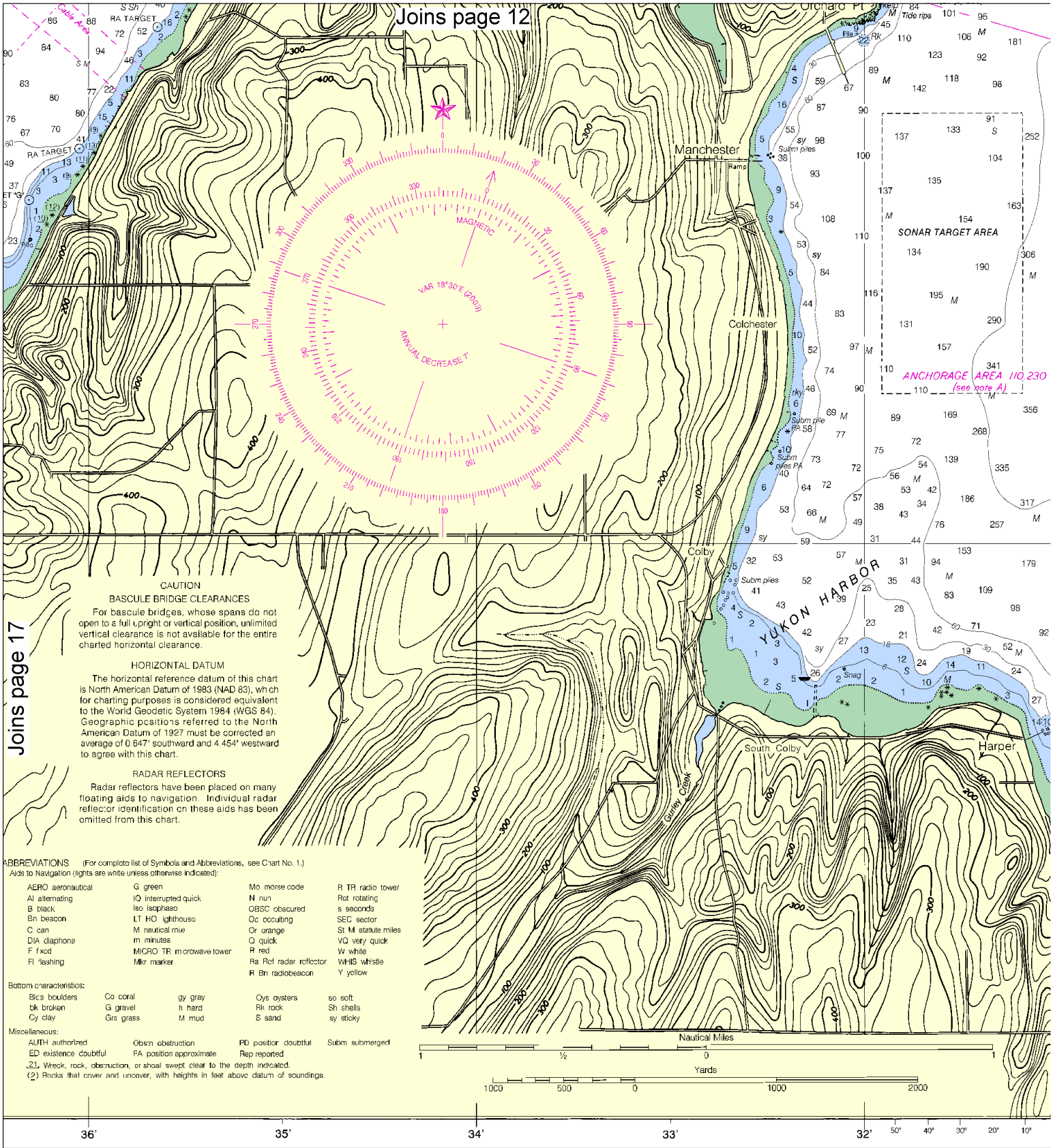
alcharts.noaa.gov.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

COLREGS, 80.1395 (see note A)

International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaward of the COLREGS Demarcation Line.



WARNING
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COLREGS, 80.1395 (see note A)
International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaw[illegible] n Line.

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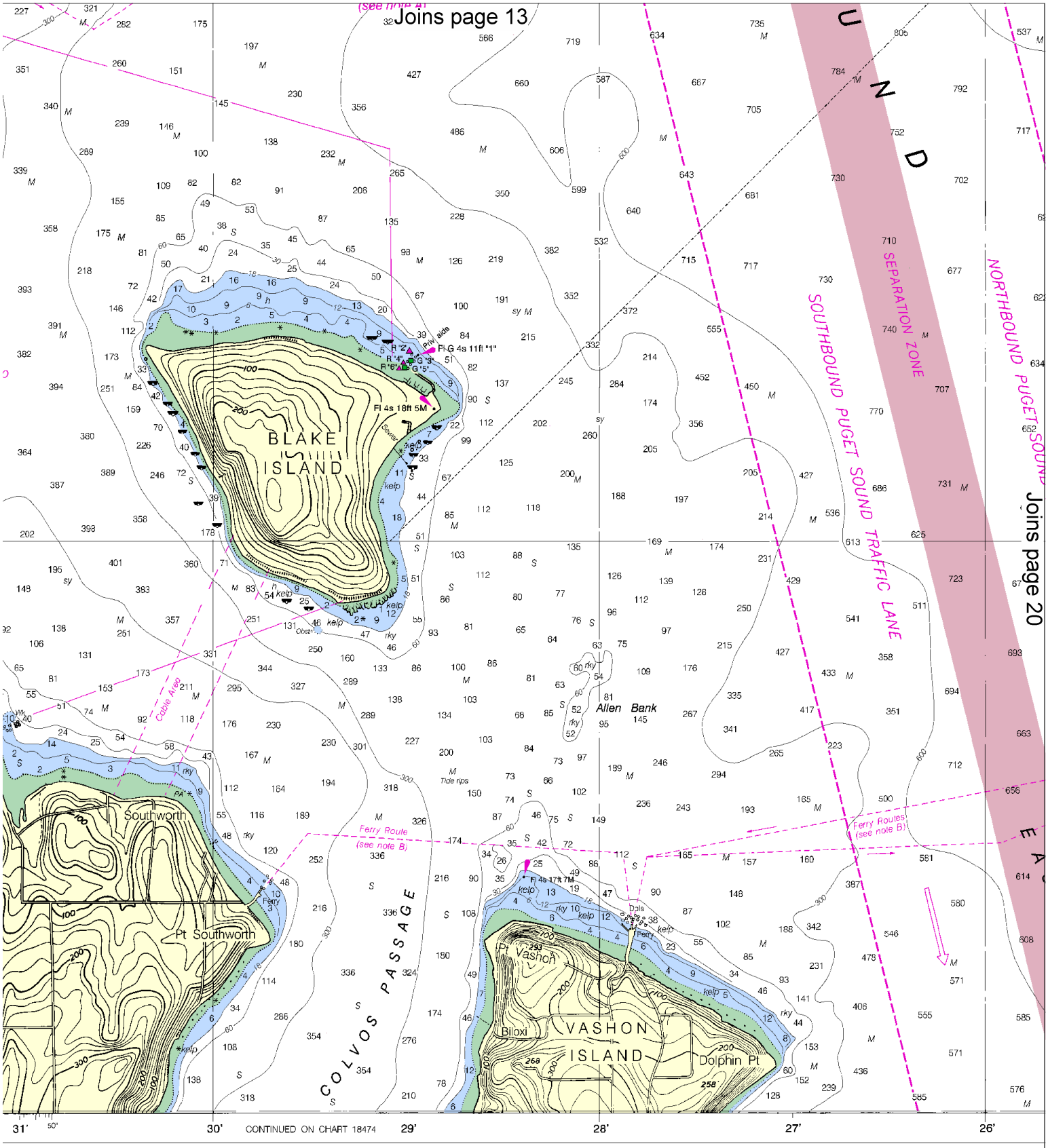
U.S. DEPARTMENT
NATIONAL OCEANIC AND ATMC
NATIONAL OCE
COAST SU

North

Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

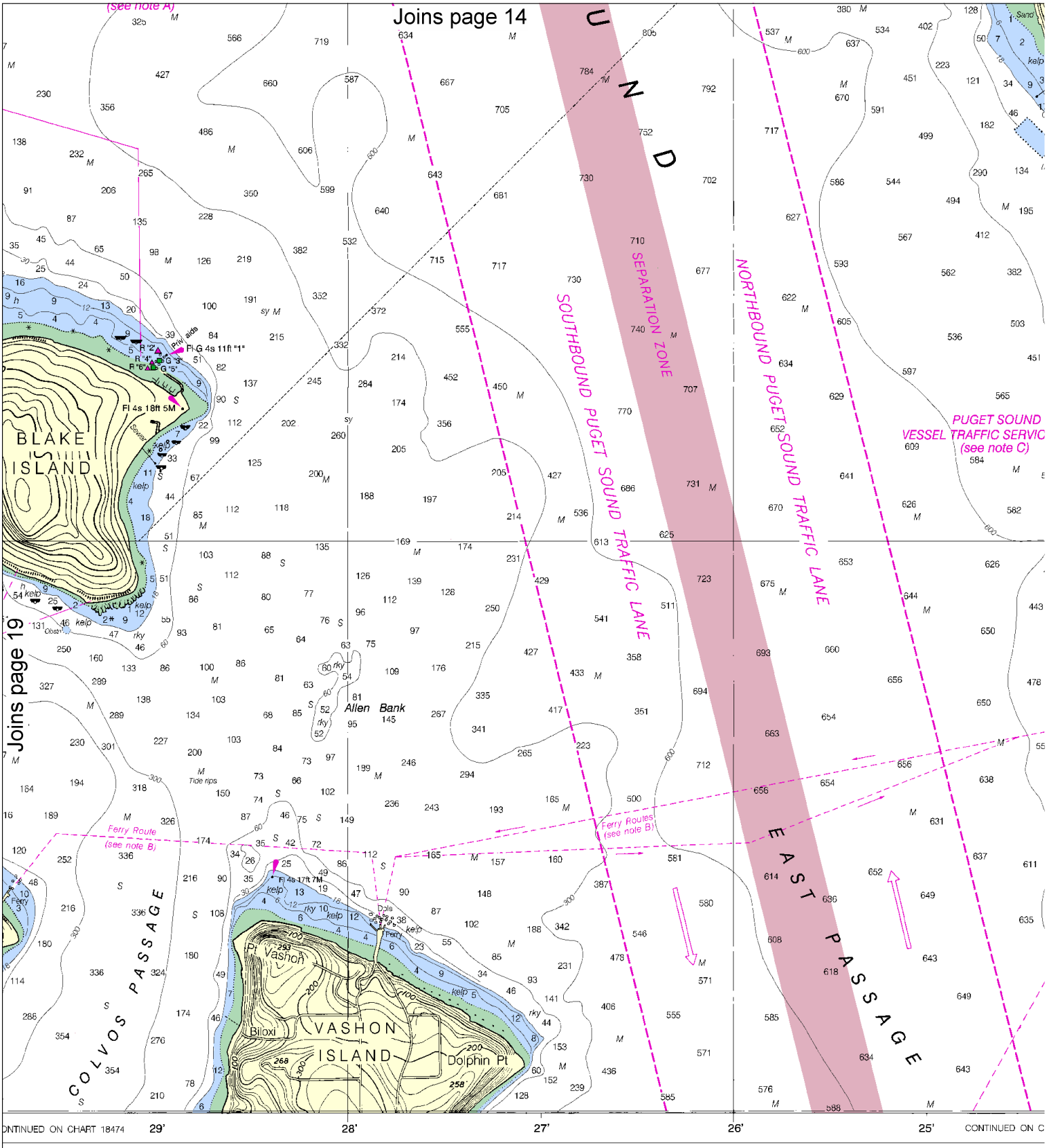
Nautical Miles
1 ½ 0 1

Yards
1000 0 1000 2000



ashington, D.C.
T OF COMMERCE
MOSPHERIC ADMINISTRATION
EAN SERVICE
SURVEY

SOUNDINGS IN FEE



SOUNDINGS IN FEET

FATHOMS
FEET
METERS

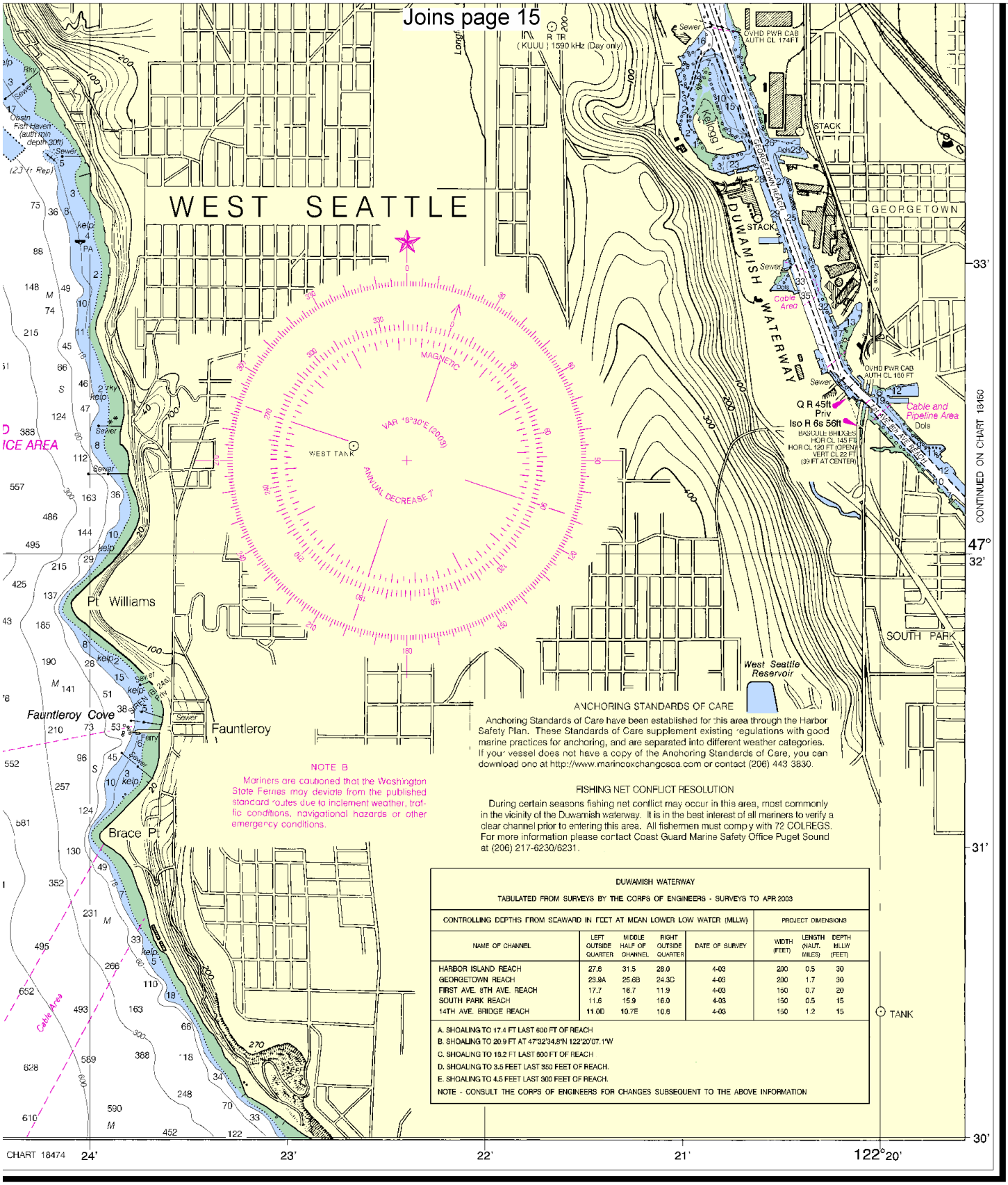
North

Printed at reduced scale. ~~SCALE 1:25,000~~ See Note on page 5.

Nautical Miles
1 ½ 0 1

Yards
1000 0 1000 2000

Joins page 15



ANCHORING STANDARDS OF CARE

Anchoring Standards of Care have been established for this area through the Harbor Safety Plan. These Standards of Care supplement existing regulations with good marine practices for anchoring, and are separated into different weather categories. If your vessel does not have a copy of the Anchoring Standards of Care, you can download one at http://www.marinecxchangesea.com or contact (206) 443 3830.

FISHING NET CONFLICT RESOLUTION

During certain seasons fishing net conflict may occur in this area, most commonly in the vicinity of the Duwamish waterway. It is in the best interest of all mariners to verify a clear channel prior to entering this area. All fishermen must comply with 72 COLREGS. For more information please contact Coast Guard Marine Safety Office Puget Sound at (206) 217-6230/6231.

NOTE B

Mariners are cautioned that the Washington State Ferries may deviate from the published standard routes due to inclement weather, traffic conditions, navigational hazards or other emergency conditions.

DUWAMISH WATERWAY

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 2003

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	PROJECT DIMENSIONS WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
HARBOR ISLAND REACH	27.6	31.5	28.0	4-03	200	0.5	30
GEORGETOWN REACH	29.9A	25.6B	24.3C	4-03	200	1.7	30
FIRST AVE. S/TH AVE. REACH	17.7	16.7	11.9	4-03	150	0.7	20
SOUTH PARK REACH	11.6	15.9	16.0	4-03	150	0.5	15
14TH AVE. BRIDGE REACH	11.0D	10.7E	10.8	4-03	150	1.2	15

A. SHOALING TO 17.4 FT LAST 600 FT OF REACH
B. SHOALING TO 20.9 FT AT 47°32'34.8"N 122°20'07.1"W
C. SHOALING TO 16.2 FT LAST 600 FT OF REACH
D. SHOALING TO 3.5 FEET LAST 350 FEET OF REACH.
E. SHOALING TO 4.5 FEET LAST 300 FEET OF REACH.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Seattle to Bremerton

SOUNDINGS IN FEET - SCALE 1:25,000

18449

ED. NO. 18
NSN 7642014011511
NIMA REFERENCE NO. 18AHA18449

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 & 78A – Recreational boat channels.

Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

HAVE ALL PERSONS PUT ON LIFE JACKETS !!

Mobile Phones – Call 911 for water rescue.
Coast Guard Search & Rescue – 206-220-7001
Coast Guard Seattle – 206-217-6001
Commercial Vessel Assistance – 1-800-367-8222

NOAA Weather Radio – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

Getting and Giving Help – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

NOAA, The Nation's Chartmaker

NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S, including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.NauticalCharts.NOAA.gov.

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.OceanGrafix.com.

Official Electronic Navigational Charts (NOAA ENCs®) – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official Raster Navigational Charts (NOAA RNCs™) – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at www.NauticalCharts.NOAA.gov.

Official BookletCharts™ – BookletCharts™ are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is www.NauticalCharts.gov/bookletcharts.

Official PocketCharts™ – PocketCharts™ are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot® – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at www.NauticalCharts.NOAA.gov.

Official On-Line Chart Viewer – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is www.NauticalCharts.gov/viewer.

Official Nautical Chart Catalogs – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm.

Internet Sites: www.NauticalCharts.NOAA.gov, www.NOAA.gov, www.TidesandCurrents.NOAA.gov, www.NOS.NOAA.gov.